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Varietal Description of Profit Spring Canola

Origin and breeding

Profit spring canola, tested as DN 188, was developed at the Agriculture Canada Research Station, Saskatoon, Saskatchewan. This variety results from the cross [(Bronowski x Target) x Zephyr] x Midas made in 1973. Subsequent progeny were maintained using the pedigree selection system. In the F_2 and F_3 generations, selections were made on the basis of canola quality while in the F_4 and F_5 generations selections were made on the basis of yield, maturity and oil content. Profit results from a single F_5 plant selection.

Varietal characteristics

Plant characteristics

Lodging resistance: slightly better than Westar

Plant height: taller than Westar

Maturity: approximately 3 days later than Westar

Disease reaction: moderately susceptible to blackleg *(Leptosphaeria maculans)*; equal to Regent and Tribute for root rot resistance *(Rhizoctonia solani)*, better than Westar; similar to Westar in white rust resistance *(Albugo candida)*, slightly poorer than Regent

Seed characteristics

Oil content: higher than that of Westar

Protein content: similar to that of Westar

Glucosinolate content: lower than that of Westar

Chlorophyll content: lower than that of Westar

Performance

Profit is lower yielding than Westar and later in maturity. However, Profit has a very good oil content and has a better level of resistance to blackleg than Westar or Regent.

Maintenance of breeder seed

Agriculture Canada Research Station, Saskatoon

Canadian distributor

SeCan Association

Recommended by

Western Canada Canola/Rapeseed Recommending Committee

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Table 1. Agronomic Performance and quality of Profit and check varieties in the 1985 Rape Strain Test and the 1986, 1987 and 1988 Western Co-operative Canola/Rapeseed Trials

Variety	Yield (kg/ha)	Yield as % of Westar	Oil[1] (%)	Protein[2] (%)	Days to Maturity	Lodging (1-5)*	Glucosinolates (μmoles/g meal)	Chlor. (ppm)
1985 Rape Strain								
Westar	2170	100.0	43.2	45.0	99	2.9	12.2	—
Regent	1790	82.5	42.4	45.4	102	2.6	15.8	—
Profit	2070	95.4	44.8	44.7	102	2.4	9.2	—
1986 Co-op								
Westar	2190	100.0	44.3	45.1	101	2.2	9.5	—
Regent	1910	87.2	43.7	46.4	1033	2.3	13.6	—
Profit	2110	96.3	44.8	45.1	103	2.3	8.7	—
1987 Co-op								
Westar	2630	100.0	43.7	47.0	102	2.6	12.3	4.4
Regent	2080	79.1	43.1	47.7	105	2.0	13.7	29.4
Profit	2560	97.3	44.7	47.1	104	2.4	9.3	25.3
1988 Co-op								
Westar	2510	100.0	44.4	45.4	98	1.8	10.4	18.5
Regent	2310	92.0	43.9	46.0	101	1.8	13.0	20.8
Profit	2350	93.6	45.1	45.7	100	1.8	8.8	17.8
Mean								
Westar	2375	100.0	43.9	45.6	100	2.4	11.1	26.4
Regent	2022	85.1	43.3	46.4	103	2.2	14.0	25.1
Profit	2272	95.7	44.8	45.6	103	2.2	9.0	21.5

*Locations: Winnipeg, Portage la Prairie, Brandon, Morden, Carman, Miami, Indian Head, Lashburn, Loon Lake, Melfort, Somme, Carrot River, Meath Park, Saskatoon, Glaslyn, Outlook (irrigated), Scott, Watrous, Regina, Lethbridge (dry & irrigated), Ellerslie, Westlock, Vermilion, Penhold, Kelsey, Lacombe, Olds, Delacour, Beaverlodge, Fairview, Ft. Vermilion, Swan River, Ituna, Altona

*1-5; 1 = best resistance

[1] Percent dry seed basis.

[2] Percent oil free meal basis

Table 2. Blackleg reactions* of Profit and check varieties, Western Co-operative Canola/Rapeseed Trials, 1986-88

	1986		1987		1988	
Rating*	Saskatoon (0-100)	Melfort (0-100)	Saskatoon (0-100)	Elgin (1-5)	Saskatoon (0-100)	Souris (1-5)
Variety						
Westar	82.0	42.8	32.3	4.1	34.5	2.9
Regent	58.1	26.8	17.0	2.7	34.2	2.1
Profit	59.6	15.8	21.8	1.9	15.7	1.6

*Low number indicates least disease

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